

The prognosis of my case was unfavourable, the wound being oblique and implicating only one temple. Heister remarked that most of those wounded in one temple, at a certain battle, died immediately or shortly after. On the contrary, Thompson saw, after the battle of Waterloo, ten cases where the ball passed from temple to temple transversely, yet all recovered. Did the vulnerant body pass through the cerebral lobes, as some maintain, to account for the symptoms?

Then a direct wound of the eye is most always fatal, passing back, as it does, implicating the brain; an oblique one less so; and a transverse one least of all.

DOMESTIC SUMMARY.

Bromine in Hospital Gangrene.—Dr. M. GOLDSMITH, Surgeon U. S. V., gives (*American Med. Times*, Sept. 12, 1863) the following consolidated statement of the cases of hospital gangrene, of which he has gathered the records from various U. S. military hospitals. Four of these cases terminated fatally. "One of these cases," he states, "is reported as having been brought into the hospital moribund. Two were cases in which the disease attacked the track of ball wounds passing through the thigh, and in which the bromine was applied to the external parts, the apertures of entrance and exit only, and therefore did not touch the major part of the gangrenous surfaces. One, in which, with a wound like those just mentioned, the cellular tissue of the limb from the trochanter major to the malleoli was destroyed by cellulitis. It will also be noticed, that in four cases the bromine is reported to have failed in arresting the gangrene. In each of these the bromine had been applied, I have reason to believe, much more frequently than is compatible with the establishment of granulation—for bromine is a caustic agent. In one case granulation occurred two days after the abandonment of the bromine, and the use of a weak solution of creasote; in two cases after the use of a solution of the persulphate of iron, and in one case after the use of a cow-dung poultice.

Consolidated Statement of Cases of Hospital Gangrene treated in Louisville, Nashville, Murfreesborough, and New Albany.

	Whole number.	Recovered.	Died.	Amputations.	Average duration of treatment.		Percentage of deaths.
					Days.	Hours.	
Treated with bromine in any way.	152	148	4	0	5	14	2 63-100
Treated with bromine pure exclusively . . .	27	25	2	0	2	23½	
Treated with bromine in solution exclusively .	86	84	2	0	6	11½	
Treated with bromine pure after the solution failed	8	8	0	0	12	15	
Treated with bromine after nitric acid failed .	23	22	0	1	3	16½	69 54-100 } 38 47-100 } 50
Treated with bromine after other remedies failed	8	8	0	0	3	4	
Treated with nitric acid exclusively	13	5	8	0	3	14 2-5	
Treated with other remedies exclusively . . .	13	7	5	1	7	13 5-7	
Treated with other remedies after bromine had failed	4	4	0	0			

"I beg here to call the attention of such of your readers as may be interested in the matter to the fact, that almost all the surgeons who have adopted the bromine treatment of hospital gangrene rely now upon the use of the pure undiluted agent, the various solutions having been found less prompt in their effects, and, for the ends in view, less reliable."

Dr. Post, in a discussion before the New York Academy of Medicine (May

20th, 1863), made the following remarks on the use of bromine in hospital gangrene, as reported in *American Med. Times*, Sept. 12. "The local treatment seemed to have played the most important part in arresting the progress of the disease. The remedy used more than any other was one introduced by Dr. Middleton Goldsmith, Assistant Med. Director. I refer to bromine, or some of its preparations. It is principally with reference to the action of bromine as a local application that I have risen to speak. The preparations of bromine that have been used have been either the pure bromine, a dark red liquid with a pungent odor, or more frequently a preparation analogous to Lugol's solution of iodine—160 grains of the bromide of potassium are dissolved in 4 oz. of water, this solution is placed in a bottle, and an ounce of bromine is added, making a solution of the bromuretted bromide of potassium. In some cases there is a simple residuum, owing doubtless to some existing impurity in one or other of the ingredients. It is a reddish-coloured fluid, from which the fumes of bromine are given off. The mode of making the application has varied somewhat with different surgeons of the hospitals I have visited, but those who used it with the most care and success used it in the manner which I will indicate. In the first place, after the sloughing process has been fully established, when the tissues involved have become positively putrid, and there is a disposition to form a separation between sound and healthy parts, all the dead portions are carefully detached by means of a scissors, after which the denuded part is thoroughly washed with a syringe and lukewarm water; after this the comp. sol. of bromine is brought in contact with every portion of the sore either by means of a camel's hair brush or a small syringe. If there be sinuses, the fluid is injected into them, and the same thing is done with the undermined integument. In case of a gunshot wound through the limb, when the syringe cannot easily be used, a small strip of old linen is attached to the eye of a probe after having been dipped in the solution, and drawn through the wound. This linen is then left in until the next day's dressing.

"The first effect of the bromine was very remarkable in removing all offensive odour—the fetor would be removed in a very remarkable manner, so much so that you had to apply your nose close to the surface of the sore to detect any odour whatever. The next effect was to coagulate the albumen and leave the part as if varnished—there was no appearance of putrefaction whatever. The patients complained of severe pain at the time of the application, but I have reason to believe that such complaints were much exaggerated. The dressing applied after the application of the bromine varied in different cases. In most cases the surgeons were in the habit of applying yeast poultices, and they also used, as a substitute for this, a fermenting substance made by adding carbonate of soda and tartaric acid to a poultice. I suggested to them the propriety of substituting the bicarb. potash for the cream of tartar, on the ground that the gas would in that event be more slowly evolved. In other cases the liq. sod. chlorinata was used; in fact, numerous applications of the sort were made according to the peculiar notion of the surgeon-in-charge.

"I found that there were some of the surgeons in Nashville who were sceptical with regard to the advantages of bromine as a local application, they maintaining that they had better success from the use of nitric acid; but I observed that some of these gentlemen had applied it in rather a careless way, while they had used the nitric acid more thoroughly and with more care. There was one gentleman, particularly, who seemed very sceptical. I informed him, that he had not applied it as carefully and as thoroughly as the other surgeons, and therefore he erred in a good effect. I also suggested, that if he would use it in another way he would have like success. Since I have returned to the city I have received a letter from that gentleman, and he tells me that he has taken my advice with reference to its mode of application, and has been abundantly successful.

"With regard to the constitutional treatment, I believe there can be very little discrepancy of opinion concerning the use of tonics, stimulants, and good food in this disease.

"I will observe, that those gentlemen who have used bromine so largely look upon it as an antidote to the poison, whatever it is, of hospital gangrene, and

consequently they do not advocate the free circulation of fresh air as they otherwise would.

"I observed that bromine was used for disinfecting the atmosphere of the ward, by pouring it into saucers, or by carrying an open-mouthed bottle containing the liquor through the ward. This was done five minutes at a time three times a day, and the fact that the gangrene did not spread where bromine was used, seems strong proof of the existence of the property claimed for it.

The frequency of its application varied with different surgeons from once to twice or three times in twenty-four hours. When the surface of the granulations became visible, the solution was weakened. In the cases that I had the opportunity of seeing, the disease was arrested throughout the great body of the sore within two or three days. In the case of the seton in the back, the disease was not arrested ten days after the application, but I have afterwards understood from Dr. Goldsmith that the disease was finally entirely checked.

"I have come to the conclusion, from what I have seen, that the application in the treatment of hospital gangrene is very highly conducive to the welfare of the patient, and I think that it will prevent the spread of the disease.

"There is one important fact connected with bromine which I think well worth relating. I saw, at Louisville, a case of hospital gangrene of the leg, where, in the course of the disease, the posterior tibial artery became involved, and hemorrhage occurred. The interesting feature in this case was, that the surgeon-in-charge tied the artery at the bottom of the sloughing surface, and applied the bromine immediately over it. I saw that case a little less than a week after the application occurred, and the case was doing remarkably well. The ligature had separated the day before I saw it, and at that time the sore was in a state of healthy granulation. I am unable to say whether any further hemorrhage occurred. Dr. Goldsmith informed me, that the case was the fourth one where such a result was obtained from the application of bromine. This is a very remarkable fact, because the general result of tying arteries in the midst of sloughing parts is that hemorrhage takes place very soon again. If bromine has the power of arresting this sloughing process, it is a fact well worthy of our investigation.

"Dr. Post, in conclusion, alluded to the good effects claimed by the surgeons for bromine in cases of diphtheria and erysipelas. In the 'Park Barracks,' in Louisville, erysipelas broke out with great severity, and the moment that the bromine treatment was introduced the disease ceased to spread. The remedy was used both in fumigation and as a local application. The surgeons were in the habit of moistening lint with the compound solution of bromine, and applying it directly to the part, and covering the whole with oiled-silk. Dr. Post saw a number of cases treated in that way, where improvement had taken place in a very short time. He was informed by those gentlemen who had charge of the erysipelatos hospital, that in almost all cases, in from twelve to twenty-four hours after the commencement of the treatment, the erysipelas began to subside. It scarcely, in any case, continued to spread beyond two or three days; generally its spread was checked within from twelve to twenty-four hours."

Dr. WILLIAM B. ALLEY reports (*Buffalo Med. J.*, Sept. 1863) a severe case of hospital gangrene successfully treated by bromine.

Dr. R. S. STANFORD, Surgeon U. S. V., also reports (*American Med. Times*, July 18, 1863) a case of hospital gangrene successfully treated in Hospital No. 12, Louisville, Ky., by the same article, and expresses great confidence in its efficacy.

"From my own observation," he says, "in the treatment of hospital gangrene, erysipelas, and diphtheria, I am entirely satisfied that all of them are local diseases, and may be cured by the use of bromine properly applied. The foregoing case establishes, as far as any single case can do, the efficacy of pure bromine over the compound solution, the latter having been applied daily for the term of twenty-seven days without arresting the gangrenous process, while the pure bromine arrested it upon the first application. The wound was prepared for the reception of the remedy in the same way, and with no more pains

than had been taken upon each application of the solution. The constitutional symptoms subsided within twenty-four hours after the pure bromine had been applied; the gangrenous odour disappeared entirely within the first six hours after the application of the pure remedy. Within twenty-four hours the appetite returned, and has continued good ever since. The skin gradually gave up its dirty yellowish hue; the urine also gradually returned to the normal colour; the pulse dropped down to eighty, and has maintained that number of beats per minute from the second day after the application of the pure remedy up to the present time.

"The patient is now able to walk about the ward, and would do so if he had two legs. The wound has been filled with granulations, and is being skinned over, there only remaining a small portion upon which the skin has not been renewed, and this immediately around the bone.

"If this was the only case I had treated with this remarkable agent, I could not speak in as strong terms as I am now about to do; but I have treated a number of cases that were equally as grave as this one, and with complete success in every instance; and numerous cases in other hospitals have been met, where a like success crowned its proper application. I can say to the profession with unbounded confidence, that we have in bromine an agent that will, when properly applied to gangrenous ulcerations, cure them in every instance with more certainty than quinine cures intermittent fever."

Veratrum Viride as a Means of Diagnosis in Diseases of the Chest.—Professor SAMUEL R. PERCY, M.D., extols (*American Med. Times*, July 11, 1863) the value of the veratrum viride as a means of diagnosis in diseases of the chest.

He states that since 1856 he has "been in the habit of preparing every patient, whose heart or lungs I have wished to examine, with small and proper doses of veratrum viride, and by this means I have been enabled to arrive at a clear and certain diagnosis of cases of incipient phthisis, pleuritis, pneumonia, diseases of the heart, etc., that I could not clearly diagnose without the previous preparation of the patient with this remedy, owing to functional disturbances or other exciting causes. There are many persons who are examined for these diseases where it is almost impossible to arrive at any correct diagnosis in the early stages of disease, at which time *only* treatment can be expected to be of much avail, owing to even slight functional disturbances, which completely mask or render obscure the signs that without the disturbing causes would be readily recognized. Now veratrum viride quiets these functional disturbances, lessens the rapidity of the circulation, tranquillizes the respiration, and thus so moderates these functions that the mind can readily define and arrange the sounds that are communicated to the ear. I give you this new means of diagnosis as the results of my own investigations. I am not aware that it has ever been practised, except by those to whom I have communicated it. I need not impress upon you its vast importance, for by means of this practice you may always know what you are treating, and you will find that that is no slight gain in your ability to inform your patient of what he may expect from your treatment. This new means of diagnosis will be of inestimable value to the Life Insurance Companies in all cases of doubtful diseases of the chest."

Extirpation of Parotid Gland.—Prof. D. BRAINARD reports (*Chicago Med. Journ.*, Aug. 1863) the following example of this:—

"Timothy Brodley, of Fond du Lac, Wisconsin, aged 45, healthy, of good constitution, perceived when he was 21 years of age, a tumour below the body of the lower jaw. This grew to the size of his 'fist' without pain, and was removed in 1850 in Ireland.

"About 1858 he perceived it returning in a small tumour behind the ramus of the jaw on the right side. It grew without pain until Jan. 1863, when it presented the appearance shown in the photographic figure. It then extended up to the zygomatic arch, and down to the middle of the neck, forward upon the side of the face, and backwards under the sterno-mastoid muscle; was detached, very movable, but the skin was adherent to the surface.

"Wednesday, Jan. 14th, 1863, I removed it in presence of the Medical Class of Rush Medical College, assisted by Prof. J. W. Freer.

"Two incisions were made to embrace the adherent portion of the skin, which was then dissected up before and behind. I then commenced separating it from below upwards with the finger. This was readily done till the back and upper part was reached where it involved the external carotid and jugular vein, which were tied below and then divided. The dissection was then completed mostly with a blunt instrument. The upper end of the external carotid artery required ligature, and one branch below. The tumour in its growth had drawn the parotid gland out of its place so that it was not difficult to pass an instrument behind its upper part.

"When the tumour was removed, there was a space extending from the articulation of the lower jaw below the corner of the os-hyoides. The styloid process, stylo-hyoid ligament, the internal jugular vein and internal cerebral artery were exposed, and the space behind and within the ramus of the jaw was cleared.

"Prof. Freer, for many years Prof. of Anatomy in the College, examined carefully and could find no trace of the parotid gland. The right side of the face was paralyzed.

"On examination of the tumour, pieces of the gland in a healthy state were found around the upper edge; below this a considerable part seemed composed of the same tissue altered in structure which was softened and redder than natural. At the lower part there was a softer granulated mass, which Dr. Freer examined with the microscope. He found no common cells, but rounded granules with traces of ducts.

"Without assuming to decide positively as to the tissue in which this disease originated, it is certain that it involved the whole of the parotid gland except slight particles above.

"To the naked eye the structure of it appeared to be the fibro-plastic material. No doubt can, I think, exist as to the removal of the entire gland, which I have removed in two other instances, and the reports of which cases have been heretofore published in this journal.

"The time required to complete the operation was perhaps thirty minutes. The hemorrhage was considerable, but by tying the external carotid before dividing it, this was partly controlled. No accident happened to the patient, and in twenty days he returned home with the wound nearly healed."

Remarkable Instance of the Glancing of a Minie Ball.—Dr. GEO. F. FRENCH, Act. Ass. Surg. U. S. A., relates (*American Med. Times*, April 4, 1863) the following example of this: "Geo. Fowler, Co. F, 50th N. Y., was admitted into hospital, December 19th, with a gunshot wound received at Fredericksburg, December 13th, the ball entering just behind the left great trochanter, but not emerging. A probe following the track of the ball made an *obtuse* angle of about 115° with the shaft of femur. A small fragment of bone was found splintered from the great trochanter and extracted.

"Jan. 3. I discovered tenderness and a point of hardness at upper border of left nates, which was suspected to be the ball, but from its great depth under the muscles, it was impossible to determine. I conferred with two surgeons, who dissented, on the ground that the ball, if there, *must have glanced at an acute angle*. Still, not being able to account for the tender and indurated spot, and the operation being unattended with danger, I cut down two inches through the muscles, and came upon the ball, the *curvature* of which corroborated the supposition as to its direction."

Lupus successfully treated by Stramonium.—Dr. JOHN HASTINGS reports (*The Pacific Med. and Surg. Journ.*, May, 1863) three cases of lupus successfully treated by stramonium. In two of the cases the bruised leaves, made into a poultice, were applied to the ulcerated surface, and afterwards stramonium used; in the third case the latter ointment was alone employed.